

# United States Patent [19]

## Nakane et al.

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# [54] FARNESYL DIPHOSPHATE SYNTHASE

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435/325; 435/320.1; 435/410; 536/23.2; 935/22

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#### 57] ABSTRACT

A mutant prenyl diphosphate synthase capable of synthesizing prenyl diphosphates, shorter than those synthesized by the original enzyme, by modifying the amino acid sequence in and upstream of the aspartic acid-rich domain DDXX (XX)D (X denotes any amino acid, and XX in the parentheses may not be present) present in region II of the prenyl diphosphate synthase.

16 Claims, 3 Drawing Sheets